19"/2® CS2207

Computer in a 19"/2® form factor

The 19"/2® CS2207 is a high-performance Xeon computer, with a wide range of interfaces including CAN, USB3.0 and SDI output.

Small form factor

The MilDef 19"/2® form factor is optimized for reduced size, weight, and power (SWaP) to meet industry and military requirements without sacrificing reliability, ruggedness or performance.

Flexible mounting

The 19"/2® standard enables flexible mounting options for a wide array of integration scenarios. The unit can be mounted in a standard 19" rack, half racks, or directly to a surface and in any angle.

Military-relevant rugged design

MilDef products are designed to operate in extreme environmental conditions and challenging electromagnetic operational scenarios. Operationally proven, MilDef products are actively employed in military operations in over 60 countries.

Customizable

Are you looking for additional features and functions? MilDef specializes in customized solutions, to include change of connectors, chassis modifications, mounting solutions, etc. Contact your nearest MilDef Sales Office and we will help you tailor a solution to meet your exact requirements.

Guaranteed performance

MilDef products are designed for the long lifecycles of military programs and come with a lifetime support program to ensure your equipment maintains peak performance for many missions to come.

We also guarantee the availability of spare parts for an additional 5 years after product end-of-life.

Features

- Intel® HD Graphics P630
- Up to 64 GB RAM ECC
- 2.0 GHz, Intel® Xeon® 9th Gen, E-2276ML
- Passively cooled

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Connector Interfaces

SERVICE (back)	• 1x RS232 Service
X1 DC IN (front)	• 1x Power • 1x Remote Power ON/ OFF
X2 (front)	• 4x ETH 1000BASE-T • 2x CAN2.0B
X3 (front)	• 1x DVI • 1x USB2.0 • 1x Remote power on
X4 (back)	• 1x DVI • 1x USB2.0 • 1x Remote power on
X5 (front)	• 1x Audio • 5x USB2.0 • 3x RS232
X7 (front)	• 1x USB3.2 Gen 1
X8 (front)	• 1x USB3.2 Gen 1
X9, X10 (back)	2 connectors which each has: • 1x 3G SDI Level A out 75 ohm (duplicated from the same source)

Other Interfaces

1x Battery cover (bottom)
1x MilDef M.2 disk slot (front)
1x System button (front)

Technical Specification

Blanking	Double-pressing the System button
Computer graphics	Intel® HD Graphics P630
Computer memory	Up to 64 GB RAM ECC
Processor	2.0 GHz, Intel® Xeon® 9th Gen, E-2276ML 6 cores, 12 threads
Electronics ground to chassis	Non-isolated
MIL-STD-1275E	Fully compliant
Polarity protection	Protected against incorrect polarity connection on the power input within the normal operating voltage range
Power consumption	Idle 25 W (OS only) Typical 60 W (50% load, no USB load) Max 100 W (100% load, max USB load)
Power input	12-32 VDC
Power to chassis	Isolated
Power to electronics ground	Isolated
Chassis material	Aluminum
Coating and color	AE0305-1101320 Axalta (RAL 1013)
Cooling	Passively cooled
Dimensions width and height	220 x 43.4 mm (8.66 x 1.71 in) (WxH)
Earth point	M6 12 mm
Surface treatment chassis	Chromit-Al
Unit depth	354 mm (14 in)
Weight	4 kg (8.9 lbs)
MTBF	69,031 h
CE	Compliant

Environmental Specification

Functional shock - Operating	MIL-STD-810G, Method 516.6, Procedure I - Functional Shock. Table 516.6-II, Terminal peak sawtooth pulse, Ground equipment 40 g 11 ms
High temperature - Operating	MIL-STD-810G, Method 501.5, Procedure II - Operation 55 °C (131 °F)
High temperature - Storage	MIL-STD-810G, Method 501.5, Procedure I - Storage 71 °C (160 °F)
Humidity	MIL-STD-810G, Method 507.5, Procedure II - Aggravated 95 ± 4 % RH Ten 24 h cycles
IP Class (Solid Particle Protection)	IP Class 6X
IP Class (Water)	IP Class X5
Low air pressure - Rapid decompression	MIL-STD-810G, Method 500.5, Procedure III - Rapid decompression 75.2 kPa, corresponding to 2,438 m (8,000 ft) 17 kPa, corresponding to 12,192 m (40,000 ft)
Low air pressure - Operating	MIL-STD-810G, method 500.5, Procedure II - Operation/Air Carriage 4,572 m (15,000 ft)
Low temperature - Operating	MIL-STD-810G, method 502.5, Procedure II - Operation -40 °C (-40 °F)
Low temperature - Storage	MIL-STD-810G, method 502.5, Procedure I - Storage -40 °C (-40 °F)

Noise level	Maximum noise level of 40 dB SPL A-weighting at 1 m (3.3 ft) distance
Salt fog	MIL-STD-810G Method: 509.5 5 % ± 1 % (by weight) Two cycles, 24 h wet + 24 h dry / cycle
Temperature shock - Operating	MIL-STD 810G, method 503.5 procedures I - C, - Multi-cycle shocks from constant extreme temperature 55 °C (131 °F) -40 °C (-40 °F)
Vibration - Helicopter	MIL-STD-810G. Method 514.6, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter
Vibration - Loose cargo	MIL-STD-810G. Method 514.6, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo
Vibration - Tracked vehicles	MIL-STD-810G. Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, tracked vehicles
Vibration - Wheeled vehicles	MIL-STD-810G. Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, wheeled vehicles

EMC Specification

EMI conducted CE102	MIL-STD-461F, Method CE102, Conducted emissions, power leads BASIC CURVE 10 kHz - 10 MHz
EMI radiated RE102	MIL-STD-461F, Method RE102, Radiated emissions, electric field Navy Mobile & Army 2 MHz - 18 GHz
EMS conducted CS101	MIL-STD-461F, Method CS101, Conducted susceptibility, power leads CURVE #1 30 Hz - 150 kHz
EMS conducted CS114	MIL-STD-461F, Method CS114, Conducted bulk susceptibility Army, Ground 10 kHz - 200 MHz
EMS conducted CS115	MIL-STD-461F, Method CS115, Conducted susceptibility, bulk cable injection, impulse excitation
EMS conducted CS116	MIL-STD-461F, Method CS116, Conducted susceptibility, damped sinusoidal transients, cables and power leads 10 kHz - 100 MHz
EMS radiated RS103	MIL-STD-461F, Method RS103, Radiated susceptibility, electric field Army 2 MHz - 1 GHz